

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Sung-Ik Park et al.

Application No. 10/586,825

Filed: August 14, 2008

For: APPARATUS AND METHOD FOR  
MODULATING OF ON-CHANNEL REPEATER

Examiner: Shen, Qun

Art Unit: 2617

Confirmation No.: 8986

MAIL STOP: APPEALS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sirs:

With respect to the concurrently filed Notice of Appeal, Application requests a pre-appeal brief review on the grounds of clear errors in the Examiner's rejections. This request is being filed with a Notice of Appeal.

In a final Office Action mailed July 22, 2010, Claims 1 and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant Admitted Prior Art ("AAPA") in view of Behzad Razavi, *RF Transmitter Architectures and Circuits*, IEEE 1999 Custom Integrated Circuits Conference, pp. 10.1.1 – 10.1.8 ("Razavi"). Claims 6-8 and 14-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA in view of Razavi and further in view of U.S. Patent No. 6,658,261 issued to Winters et al. ("Winters").

In response to the above objections and rejection of record, Claims 6-8 and 14-16 have been amended to overcome the objections to the claims. Applicant notes that in this Action, the Examiner rejects Claims 1 and 9 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of newly cited Razavi. No amendments are presented in response to the prior art rejections. In the prior Action, the Examiner rejected Claims 1 and 9 under 35 U.S.C. §103(a) as being unpatentable over AAPA in view of U.S. Patent No. 5,828,954 issued to Wang ("Wang"). In response to the prior Action, Claims 1 and 9 were amended to provide that first and second RF up-converting means are provided for directly up-converting first and second analog signals corresponding to filtered in-phase (I) and filtered quadrature (Q) signals into first and second RF signals. It was pointed out that according to the invention, as distinguished over Wang, the RF up-converting unit directly converts analog I and Q signals without passing through an intermediate frequency band, unlike Wang, which requires first up-converting to an IF signal.

Applicant's invention is best shown in FIG. 5 in which filtering unit 540 provides I and Q signals to a pair of corresponding digital analog converters, the outputs of which are provided to corresponding I and Q up-converters. That is, the invention is directed to an I and Q filter, an I and Q digital-analog converter pair, and an I and Q up-converter pair and then an adder. The AAPA, on the other hand, uses a digital to analog converter placed after the up-converted I and Q signals have been added together to form a single signal, which is provided to the digital to analog converter.

In citing Razavi, the Examiner relies upon FIGS. 6 and 16 and the corresponding description at page 200. However, FIG. 16 appears to be directed to an analog only system and, therefore, there is no digital to analog conversion of the I and Q signals at all. Although FIG. 6 does refer to the use of a digital to analog converter, the starting point as to FIG. 6 is a square baseband pulse; i.e., a digital signal. A ROM is used to map each baseband pulse to a desired shape, which is then provided to the digital to analog converter. That is, there is no concern at all with respect to processing of I and Q signals.

Thus, adding the teachings of Razavi to AAPA would simply replace most of FIG. 3 of AAPA, except for DAC 370 with the illustrated ROM of Razavi. As to FIG. 16, since there is no suggestion that any digital signals are involved, it does not appear that FIG. 16 has any relevance at all to the present invention.

Accordingly, Applicant respectfully requests that the rejections of the claims under 35 USC 103(a) be reversed.

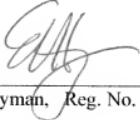
If there are any additional fees due in connection with the filing of this Pre-Appeal Brief Request For Review, please charge those fees to our Deposit Account No. 02-2666.

If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.

Respectfully submitted,

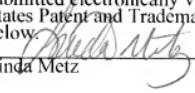
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Date: 1/20/2011

By: 

Eric S. Hyman, Reg. No. 30,139

CERTIFICATE OF TRANSMISSION  
I hereby certify that this correspondence is being submitted electronically via EFS Web to the United States Patent and Trademark Office on the date shown below.

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1-20-2011

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